

CLAIMS

- 5 1. A laminar structure comprising a deposited metal, the structure having microholes extending between a first surface and a second surface thereof, each microhole having a wall which meets the first surface with a rounded edge or tapered configuration in such a manner that the first surface is substantially smooth.
2. A structure according to Claim 1, wherein the microholes have a diameter of less than 30  $\mu\text{m}$ .
- 10 3. A structure according to Claim 1 or 2, wherein the microholes have a diameter of less than 3-4  $\mu\text{m}$ .
4. A structure according to any preceding claim, wherein the microholes have a polygonal or rhomboid form.
- 15 5. A medical device comprising, at least in part, a structure according to any preceding claim, the structure having microholes formed therein which are at least sufficiently large to permit the passage of plasma, for example, therethrough.
- 20 6. A medical device according to claim 5 in the form of a prosthetic hip joint, the hip joint having a leg portion comprising a spike and peg and a hip portion comprising a dish and a cap; wherein the spike and the cap comprise said laminar structure.
- 25 7. A medical device according to claim 5, wherein the laminar structure is formed as a cage, respective ends of the cage being securable either side of a break in a bone or to individual bones to promote regeneration of bone structure across said break or between said individual bones.
- 30 8. A medical device according to any preceding claim, wherein the structure is of titanium.

Sub  
H<sub>2</sub> 9.

A heat sink comprising a structure according to any of claims 1 to 4, one end of said structure being capable of being affixed to a surface from which heat is to be conducted.

Sub  
B<sub>1</sub> 10.

A heat sink according to claim 9, wherein the structure is of nickel, silver, gold, brass or titanium.

Sub  
A<sub>3</sub> 11.

A filter element comprising a laminar structure according to any of claims 1 to 4 formed as a tube.

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Sub  
B<sub>1</sub> 12.

A filter element according to claim 11, wherein the laminar structure is of nickel.

Sub  
A<sub>4</sub> 13.

A filter element according to claim 11 or 12, wherein the laminar structure is arranged to facilitate cleaning of the filter element.

14. A method of forming a laminar structure according to any of claims 1 to 4 comprising selectively depositing in a galvanic electroforming process a metal on a matrix arranged at the electroforming cathode to form said structure with a smooth surface formed with microholes meeting the first surface with a rounded or tapered configuration, the walls of said holes having rounded edges and diameters which formed in dependence upon the length of time the structure is placed in a galvanic bath used in said process and the desired thickness of the laminar structure.

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Sub  
B<sub>1</sub> 15.

A method according to claim 14, wherein the metal is nickel, gold, silver, brass or titanium.